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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROBERT A. DE JONGE, DENNIS M. HAWVER,  
DAVID M. MITTEER, EDWARD J. BRATKOWSKI, ERIC W. BRYANT,  
DANIEL J. FISHER, CRAIG A. WOLFFIS, and MARK A. MOSS

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Appeal 2009-005757  
Application 10/820,424  
Technology Center 3600

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Decided: April 27, 2010

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Before: LINDA E. HORNER, JENNIFER D. BAHR, and STEVEN D. A.  
McCARTHY, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Robert A. De Jonge et al. (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 23-29 and 51-59, which are all of the claims on appeal. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM-IN-PART and ENTER A NEW GROUND OF REJECTION PURSUANT TO OUR AUTHORITY UNDER 37 C.F.R. § 41.50(b) (2009).

## THE INVENTION

Appellants' claimed invention is a shifter assembly for controlling the transmission of a motor vehicle. Spec. 1, para [0003]. Claim 23, reproduced below, is representative of the subject matter on appeal.

23. A shifter for controlling the transmission of a motor vehicle, comprising:

- a base;

- a shift member movably mounted to the base;

- a shift gate fixed to said shift member, said shift gate having a plurality of transmission control positions; and

- said shift member movable to input positions corresponding to said transmission control positions; and:

- a powered pawl fixed to the base for selectively engaging said transmission control positions of said shift gate to restrict movement of said shift member; and including:

- a controller that actuates said powered pawl based at least in part on at least one vehicle operating parameter in addition to an input from a vehicle ignition, a position of the shift member, and a position of a vehicle brake pedal.

### THE EVIDENCE

The Examiner relies upon the following evidence:

Kito	US 4,947,967	Aug. 14, 1990
Durieux	US 6,059,687	May 9, 2000
Kato	US 6,679,809 B2	Jan. 20, 2004
Russell	US 2004/0244524 A1	Dec. 9, 2004

### THE REJECTIONS

Appellants seek review of the following rejections by the Examiner:

1. Rejection of claims 23, 26-29, 51-57, and 59 under 35 U.S.C. § 102(e) as anticipated by Russell.
2. Rejection of claim 24 under 35 U.S.C. § 103(a) as unpatentable over Russell and Kato.
3. Rejection of claim 25 under 35 U.S.C. § 103(a) as unpatentable over Russell and Durieux.
4. Rejection of claim 58 under 35 U.S.C. § 103(a) as unpatentable over Russell and Kito.

*Rejection of claims 23, 26-29, 51-57, and 59 under  
35 U.S.C. § 102(b) as anticipated by Russell*

#### ISSUE (Rejection 1)

The Examiner determined claims 23, 26-29, 51-57, and 59 are anticipated by Russell based in part on the finding that Russell's "other" position of Relay 1 and 2 is a vehicle parameter other than the parameters of: vehicle ignition, a position of the shift member, and a position of a vehicle brake pedal. Ans. 3-5.

Appellants contend that Russell's "other" parameter is not a parameter other than the three parameters enumerated in independent claims 23 and 51, because Russell's "other" parameter relates to the position of the shift member. App. Br. 12-13, 15; Reply Br. 2-4.

The issue before us is:

Is Russell's "other" parameter a vehicle operating parameter other than the position of the shift member as called for in claims 23 and 51?

#### FINDINGS OF FACT (Rejection 1)

We find that the following enumerated facts, as well as additional facts enumerated elsewhere, are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Russell discloses a shifter mechanism for controlling transmissions of motor vehicles having an electrically operated detent assembly for holding the shifter lever in one of a plurality of gear positions against movement to other gear positions. Russell 1, para. [0004].
2. Russell discloses a control circuit 102 that permits movement of a shifter lever assembly 14 based, in part, on input from an ignition switch 120, a brake switch 128, and a transmission switch 108. Russell 4, paras. [0036]-[0037]; fig. 8.
3. Russell discloses that transmission switch 108 provides a binary output based on the two positions of shifter lever assembly 14: park and "other" (a position other than the park position). Russell 4, para. [0036]; fig. 8.
4. Russell discloses a control circuit 102 configured to permit the following operations when ignition switch 120 is off. If shifter lever assembly 14 is in the park position (also placing transmission switch 108 in the park position), shifter lever 14 cannot be moved. Russell 4, para. [0037]; fig. 8. If shifter lever 14 is in other than the park

position (also placing transmission switch 108 in other than the park position), shifter lever 14 can be moved. *Id.* Consequently, when ignition switch 120 is off, shifter lever 14 cannot be moved out of the park position, but can be moved from a position other than the park position to the park position. *Id.*

5. Russell discloses that control circuit 102 is configured to permit the following operations when ignition switch 120 is on. If shifter lever assembly 14 is in other than the park position (also placing transmission switch 108 in other than the park position), shifter lever 14 can be moved. Russell 4-5, para. [0038]; fig. 8. If shifter lever 14 is in the park position (also placing transmission switch 108 in the park position), shifter lever assembly 14 can be moved only if brake switch 128 is in the on position. *Id.* Consequently, when the ignition is on, shifter lever 14 cannot be moved out of the park position unless brake switch 128 is in the on position (brakes are applied). Further, when the ignition is on, and shifter lever assembly 14 is in a position other than park, the shifter lever assembly 14 can be moved by the user's activation of shifter lever switch 124. *Id.*

#### ANALYSIS (Rejection 1)

Independent claims 23 and 51 each include the limitation that the controller actuates the powered pawl based on four vehicle operating parameters: vehicle ignition, a position of the shift member, a position of a vehicle brake pedal, and a fourth parameter other than the three enumerated parameters.

Russell discloses a motor vehicle transmission shifter lever mechanism for controlling movement of the shifter lever (Fact 1 ). The controller of the shifter mechanism permits the operator to move the shift

lever based upon the vehicle operating parameters of: ignition, position of the shift member, and brakes (Fact 2). Transmission switch 108 provides a binary output to control circuit 102 based upon the position (park, or “other”) of the shift member (Fact 3 ). Given this, the “other” parameter of Russell is a vehicle parameter indicating the position of the shift member.

Because “other” is a vehicle parameter indicating the position of the shift member, “other” is not a fourth vehicle operating parameter other than the three enumerated parameters of vehicle ignition, a position of the shift member, and a position of a vehicle brake pedal, as called for in independent claims 23 and 51. The rejection of claims 26-29, 52-57, and 59 is also in error by virtue of their dependence from independent claims 23 and 51.

*Rejection of claim 24 under 35 U.S.C. § 103(a)  
as unpatentable over Russell and Kato*

#### ISSUES (Rejection 2)

The Examiner found that Kato teaches use of engine rpm as a parameter for control of movement of a vehicle shift lever. Ans. 6. The Examiner concluded that it would have been obvious to reach the subject matter of claim 24 by modifying the shift lever assembly of Russell to add engine rpm as a parameter for control of movement of the shifting lever, as taught by Kato, in order to prevent careless operation of the shift knob and to eliminate the possibility of jack-rabbit starts or hard braking. Ans. 6-7.

Appellants contend that Russell does not provide a reason for the proposed modification. App. Br. 16. Appellants contend that modification of Russell’s vehicle shifter assembly to use engine rpm as a factor for control of the powered pawl would change the principle of operation of Russell because Russell discloses only use of conventional Brake Transmission Shifter Interlock (BTSI) parameters. *Id.* Appellants contend

that Kato discloses permitting an operator to move the shift member to an unacceptable position and then moving the shift lever to an acceptable position, contrary to operation of the powered pawl of claim 24, which prevents movement of the shift member to an unacceptable position. *Id.*

The issues before us are:

Does the absence of an articulation of a reason in Russell for the proposed modification demonstrate that the proposed combination is not based upon a sufficient reason with a rational underpinning to explain why a person of ordinary skill in the art would have modified Russell's device to reach the subject matter of claim 24?

Does the modification of Russell's device to add engine rpm as a factor for control of the powered pawl change the principle of operation of Russell?

#### ADDITIONAL FINDINGS OF FACT (Rejection 2)

6. Kato discloses that in the prior art, a conventional steer-by-wire gear shifter had the drawback that it did not account for the vehicle's running condition for control of gear shift operation so that it was possible to change the position of the shift knob causing unfavorable situations such as jack-rabbit start or hard braking. Kato, col. 1, ll. 11-12, 47-63; fig 4. To overcome these drawbacks, Kato's steer-by-wire gear shifter includes a means for controlling an actuator based upon the vehicle's running condition that provides the shift knob with an operating feeling that differs depending on the vehicle's running condition. Kato, col. 1, ll. 6-9; *id.* at col. 1, l. 66 – col. 2, l. 4.

7. Kato discloses control section 8 of the gear shifter receives: an engine revolution speed signal *e* from engine controller 10, a transmission signal *d* from transmission controller 7, and a detection



signal *a* representing the operational condition of the shift knob 4.

Kato, col. 1, ll. 16-17, 21-22; col. 3, ll. 6-12; fig. 1.

8. Kato discloses that engine control section 8 determines whether or not shift knob 4 has been operated properly with regard to the engine revolution speed signal *e*, transmission signal *d*, and detection signal *a*. Kato, col. 3, ll. 45-48; fig. 2 (steps S-2 to S-4, S-7). If shift knob 4 has not been operated properly, then control section 8 sends a control signal which guides shift knob 4 from the improper position to an acceptable position (step S-11), and then shift knob 4 is put into a new position (step S-9). Kato, col. 3, l. 63 to col. 4, l. 4. After shift knob 4 has been put into the new position, the control section 8 sends the transmission controller 7 a gear shift signal *c* matched to the new position of the shift knob 4 (step S-10), preventing jack-rabbit start or engine idling. Kato, col. 3, ll. 57-62; col. 4, ll. 4-7; figs. 1, 2.

#### ANALYSIS (Rejection 2)

Claim 24 depends from independent claim 23, and adds the limitation that the at least one vehicle parameter other than the enumerated parameters comprises engine rpm.

As the Examiner correctly points out (Ans. 11), Appellants' contention that Russell does not expressly provide a reason for the proposed modification (App. Br. 16) does not demonstrate error in the rejection of claim 24 because the rationale for the combination is provided by Kato.

We disagree with Appellants' contention that modification of Russell's vehicle shifter assembly to use engine rpm as a factor for control of the powered pawl would change the principle of operation of Russell. App. Br. 16 (citing for support to *In re Ratti*, 270 F.2d 810 (CCPA 1959)).

In *Ratti*, the modification suggested by the Examiner changed the basic principle of sealing from attaining sealing through a rigid, press-fit, interface between the components, to attaining sealing by providing a resilient interface between the components. 270 F.2d at 811-813 (“This suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the *basic principles* under which the [primary reference] construction was designed to operate.” (emphasis added)). The modification in *Ratti* fundamentally changed the technical basis of how a seal performed its sealing function and how a sealed interface was attained.

In the case before us, Russell’s controller activates the actuator based on the vehicle parameters of ignition, brake, and shift member position (Fact 2). Kato discloses consideration of engine rpm as a vehicle parameter for control of the actuator of a gear shifter (Facts 6-7). We fail to see, and Appellants have failed to explain, how modification of Russell from consideration of three vehicle parameters to consideration of four vehicle parameters is a “change in the basic principles” of operation of Russell’s device. Rather, this modification to Russell’s device is an improvement specifically taught by Kato that a person of ordinary skill in the art would recognize would improve Russell’s electronically-actuated shifter mechanism in the same way as in Kato. *KSR*, 550 U.S. at 417.

Appellants’ contention that Kato discloses permitting an operator to move the shift member to an unacceptable position and then moving the shift lever to an acceptable position (App. Br. 16) is a mischaracterization of the reference. Kato’s gear shifter does not change the transmission gear until after the shift knob has been moved to the acceptable position (Fact 8). When the operator moves the shift knob to a position that would cause an

unfavorable situation, Kato's gear shifter moves the shift knob to a new position, and sends the signal to the transmission to shift gears only after the shift knob is in this new position (Facts 6-8). Thus, contrary to Appellants' assertion, consideration of Kato's disclosure as a whole demonstrates that Kato's device prevents the transmission from shifting into an unfavorable situation.

*Rejection of claim 25 under 35 U.S.C. § 103(a)*  
*as unpatentable over Russell and Durieux*  
ISSUES (Rejection 3)

The Examiner found that Durieux discloses use of vehicle speed as a factor for control of the vehicle transmission shift lever. Ans. 7. The Examiner concluded that it would have been obvious to reach the subject matter of claim 25 by modifying the shift lever assembly of Russell to add vehicle speed as a parameter for control of movement of the shifting lever, as taught by Durieux, in order to prevent movement of the shift lever into park when the vehicle is moving. *Id.*

Appellants contend that the proposed modification would "require modification of Russell '524 to include entirely new operating features that are not disclosed in Russell '524." App. Br. 17. Appellants contend that it is improper to ignore the fact that Durieux's actuator 2 and mechanism 7 are not the same as a powered pawl that engages a plurality of transmission control positions of a shift gate required by claim 25. *Id.*

The issues before us are:

Would a person of ordinary skill in the art have been prevented from modifying the shift lever assembly of Russell to include consideration of vehicle speed as a parameter for control of movement of the shifting lever,

as taught by Durieux, because such modification would add entirely new operating features to Russell?

If the actuator 2 and mechanism 7 of Durieux are not the same as the powered pawl that engages a plurality of transmission control positions of a shift gate of claim 25, would this prevent a person of ordinary skill from modifying the shift lever assembly of Russell to include consideration of vehicle speed as a parameter for control of movement of the shifting lever, as taught by Durieux?

#### ADDITIONAL FINDINGS OF FACT (Rejection 3)

9. Durieux discloses actuating logic that functions to lock the shift lever in the parking position “P” (“shift-lock” function). Durieux, col. 1, ll. 8-11, 33-34.

10. Durieux discloses that the shift-lock function may be activated by vehicle speed in excess of a specified amount, such as 3 kilometers per hour. Durieux, col. 4, ll. 21-27.

#### ANALYSIS (Rejection 3)

Claim 25 depends from independent claim 23, and adds the limitation that the at least one vehicle parameter other than the enumerated parameters comprises vehicle speed.

We are unpersuaded by Appellants’ assertion (App. Br. 17) that the rejection of claim 25 is in error because the proposed modification would add entirely new operating features to Russell. The law of obviousness recognizes that a person of ordinary skill may piece references together, which could add a new operating feature to the modified reference. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“Common sense teaches, however, that familiar items may have obvious uses beyond their primary

purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.”).

Assuming, arguendo, that the actuator 2 and mechanism 7 of Durieux are not the same as the powered pawl that engages a plurality of transmission control positions of a shift gate of claim 25, as Appellants assert (App. Br. 17), Appellants have not explained how this dissimilarity would prevent a person of ordinary skill in the art from modifying Russell’s mechanism based on the teaching in Durieux as proposed. Further, to the extent that Appellants’ argument can be viewed as a contention that Durieux’s device cannot be bodily incorporated into the shift lever assembly of Russell, such argument is not convincing. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art.” (citations omitted)). More importantly, Appellants’ assertion does not seem to be pertinent to the articulated rejection given that the proposed modification does not use the actuator 2 and mechanism 7 of Durieux. *See* Ans. 7. Rather, the proposed modification uses Durieux’s teaching to use vehicle speed as a factor for control of a transmission shifting lever. *Id.* We find that Durieux discloses such a teaching, namely, actuating logic that functions to lock the shift lever in the parking position “P” (“shift-lock” function) based on vehicle speed exceeding a pre-determined threshold (Facts 9-10).

Given that Appellants have not asserted that the proposed modification is beyond the skill of a person of ordinary skill in the art, Durieux’s teaching is a technique a person of ordinary skill would recognize

could improve a similar device, such as Russell's, in the same way, so that use of the technique would have been obvious. *KSR*, 550 U.S. at 417 ("if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill").

*Rejection of claim 58 under 35 U.S.C. § 103(a)  
as unpatentable over Russell and Kito*

Claim 58 depends indirectly from claim 51. For the reasons explained in the analysis of claim 51 in the first rejection, *supra*, we cannot sustain the rejection of claim 58 as entered by the Examiner.

NEW GROUND OF REJECTION

We enter the following new ground of rejection of claim 23 under 35 U.S.C. § 103(a) as unpatentable over Russell and either Kato or Durieux.<sup>1</sup>

Claims 24 and 25 each depend from independent claim 23. The Examiner's rejection of claims 24 and 25 under 35 U.S.C § 103(a) constitutes an implied obviousness rejection of corresponding independent claim 23. Because claims 24 and 25 include all the limitations recited in claim 23, we conclude claim 23 must have been obvious based on our conclusion of obviousness of claims 24 and 25. *See Ormco v. Align Tech.*, 498 F.3d 1307, 1319 (Fed. Cir. 2007) (when a dependent claim is "found to have been obvious, the broader claims . . . must also have been obvious").

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<sup>1</sup> No inference should be drawn from the failure to make a new ground of rejection for other claims. *See* 37 C.F.R. § 41.50(b). *See also* Manual of Patent Examining Procedure (MPEP), 8<sup>th</sup> ed., rev. July 2008, § 1213.02 ("Since the exercise of authority under 37 C.F.R. § 41.50(b) is discretionary, no inference should be drawn from a failure to exercise that discretion").

## CONCLUSIONS

Russell's "other" parameter is not a vehicle operating parameter other than the position of the shift member as called for in claims 23 and 51.

The absence of an articulation of a reason for the modification in the Russell reference does not demonstrate that the proposed combination of Russell and Kato is based upon an insufficient reason with a rational underpinning to explain why a person of ordinary skill in the art would have modified Russell's device.

The modification of Russell's device to add engine rpm as a factor for control of the powered pawl, as taught by Kato, does not change the principle of operation of Russell.

Kato's disclosure of permitting an operator to move the shift member to an unacceptable position and then moving the shift lever to an acceptable position would not have prevented a person of ordinary skill in the art from combining Russell and Kato in the manner claimed.

A person of ordinary skill in the art would not have been prevented from modifying the shift lever assembly of Russell to include consideration of vehicle speed as a parameter for control of movement of the shifting lever, as taught by Durieux, simply because such modification would add entirely new operating features to Russell.

Even if the actuator 2 and mechanism 7 of Durieux are not the same as the powered pawl that engages a plurality of transmission control positions of a shift gate of claim 25, this fact would not prevent a person of ordinary skill from modifying the shift lever assembly of Russell to include consideration of vehicle speed as a parameter for control of movement of the shifting lever, as taught by Durieux.

## DECISION

We REVERSE the Examiner's decision to reject claims 23, 26-29, and 51-59.

We AFFIRM the Examiner's decision to reject claim 24 and 25.

We enter a NEW GROUND OF REJECTION of claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Russell and either Kato or Durieux.

Regarding the affirmed rejections, 37 C.F.R. § 41.52(a)(1) (2009) provides "Appellants may file a single request for rehearing within two months from the date of the original decision of the Board."

In addition to affirming the Examiner's rejections of one or more claims, this decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (2009). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the Examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should Appellants elect to prosecute further before the Examiner pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection,



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the effective date of the affirmance is deferred until conclusion of the prosecution before the Examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If Appellants elect prosecution before the Examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED-IN-PART; 37 C.F.R. § 41.50(b)

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